

AMENDMENTS TO THE SPECIFICATION

Kindly replace the title used in the International Application with the following:

MEDICINE FEEDER

Please amend the paragraphs beginning on page 2, line 11, as follows:

According to the present invention, as a means to solve the problem stated above, there is provided a medicine feeder comprising: a cassette for housing medicines in array; biasing member for biasing the medicines in the cassette toward one end side; and a discharge member disposed on one end portion of the cassette for holding a medicine in a holding recess portion and discharging the medicine singly by rotating movement.

This structure makes it possible to ensure discharge of the medicines housed in the cassette singly by rotating operation of the discharge member. After one medicine is discharged, the next medicine is supplied to the holding recess portion of the discharge member by the biasing member, allowing smooth discharge operation afterward.

The discharge member should be structured to have a support face so as to support the next medicine while holding the medicine in the holding recess portion and rotating.

It is desirable that the discharge member rotates so as to be positioned in each of a reception position for holding the medicine in the holding recess portion inside the cassette and an extraction position for extracting the medicine held in the holding recess portion, so that medicines can constantly be discharged at the same extraction position with a minimum operation, which makes it possible to increase workability.

It is desirable to include: medicine detection member for detecting whether or not

~~a medicine is present in the holding recess portion when the discharge member is positioned at the extraction position; and control device for allowing driving of the discharge member based on prescription data and a detection signal in the medicine detection member, which allows automatic discharge of a desired quantity of medicines.~~

According to the present invention, as a means to solve the problem stated above, there is provided a medicine feeder comprising: a cassette for housing medicines in array; biasing member for biasing the medicines in the cassette toward one end side; and a discharge member disposed on one end portion of the cassette so as to be rotatable between a reception position and an extraction position, wherein the discharge member has: a holding recess portion for holding only one medicine biased by the biasing member upon rotation to the reception position and for maintaining a holding state of the held medicine so that the medicine can be extracted from outside upon rotation to the extraction position; and a support face formed on an opposite side of the holding recess portion so as to be able to support a next medicine when the discharge member rotates to the extraction position.

This structure makes it possible to ensure discharge of the medicines constantly at the same extraction position with minimum necessary operation. Also, in the state that the holding recess portion of the discharge member is rotated to the extraction position, confirmation of the medicine can be performed. In addition, in the case of returning the medicine to the cassette, it can be achieved only by rotating the discharge member so that the holding recess portion moves to the reception position. In this case, the support face formed on the opposite side of the holding recess portion supports the next medicine, so that the medicine held in the holding recess portion is returned to the cassette smoothly. This makes it possible to enhance workability in the operation for extracting and housing the medicines.

It is desirable to include: medicine detection member for detecting whether or not a medicine is present in the holding recess portion when the discharge member is positioned at the extraction position; and control device for allowing driving of the discharge member based on prescription data and a detection signal in the medicine

detection member, which allows automatic discharge of a desired quantity of medicines.

Please amend the paragraph beginning on page 4, line 8, as follows:

It is to be noted that the biasing member means should preferably be structured to be able to apply a fixed load regardless of a quantity of medicines housed in the cassette, which allows more smooth operation of medicine discharge.

Please insert the following paragraphs on page 4, beginning at line 13, as follows:

It is to be noted that the biasing means should preferably be structured to be able to apply a fixed load regardless of a quantity of medicines housed in the cassette, which allows more smooth operation of medicine discharge.

It is also possible to provide a medicine quantity detection means for detecting a quantity of medicines in the cassette, the medicine quantity detection means having: a sensor for detecting a biased position by the biasing means in an initial state where medicines are not housed in the cassette; and an encoder for detecting change in the biased position of medicines by the biasing means caused by housing the medicines in the cassettes from the initial state detected by the sensor.

The discharge means may comprise a rotor, and an outer circumferential face of the rotor for supporting a next medicine may be formed so as not to change a position of the next medicine through rotating movement.

The discharge means may comprise a rotor, and

the control means may automatically return the rotor to a standby position if a specified time is passed while the rotor is positioned at the discharge position.

The cassette may be disposed so that housed medicines are arrayed in horizontal direction so as to be discharged one by one in sequence from one end side by the discharge

means.

The cassette may be disposed so that housed medicines are arrayed in vertical direction so as to be discharged one by one in sequence from an upper end by the discharge means.

The cassette may be disposed so that vials containing medicines with an upper aperture closed by a lid are housed in a state of being arrayed in horizontal direction in a standing position.

The discharge means may comprise a rotor, and the cassette is structured to be mounted on and dismounted from each housing portion of a stock shelf and has a lock member for preventing the rotor from rotating when the cassette is dismounted from the housing portion.

Please amend the paragraph beginning on page 29, line 7, as follows:

~~In the housing portion 3 having the above-structured rotational driving mechanism, when the cassette 2 is mounted thereon, the rotor 16 couples with the torque transmission member 90. Consequently, an unshown motor is driven to have rotation in forward and backward direction, and the rotor 16 rotates through the torque transmission member 90 so as to be positioned at the discharge position or the reception position, by which the medicines D housed in the cassette 2 are discharged singly. When the rotor 16 is in the state of being rotated to the discharge position, the first gear 91, the second gear 92 and the third gear 93 rotate and the slider 94 moves to a position shown in Fig. 24C. Then, at this position, the latch 96 couples with the coupling protruding portion 94a. As a result, the slider 94 is disabled from moving, and the torque transmission member 90, i.e., the rotor 16, is positioned at the discharge position through the third gear 93, the second gear 92 and the first gear 91. If the coupling state by the latch 96 is cancelled, the slider 94 moves to a position shown in Fig. 24B by biasing force of the spring 95, so that the third gear 93 rotates. At this time,~~

~~by virtue of the damper 97, rapid rotation of the third gear 93 is prevented. Therefore, the rotational velocity of the torque transmission member 90 which rotates through the second gear 92 and the first gear 91 is suppressed, and so the rotor 16 smoothly returns to the reception position.~~

When the cassette 2 is mounted on the housing section 3 having the above-structured rotational driving mechanism, the rotor 16 is coupled with the torque transmission member 90. Consequently, by operating a protruding portion of the torque transmission member 90, the rotor 16 rotates, and the torque transmission member 90 is positioned at the discharge position or the reception position, so that the medicines D housed in the cassette 2 are discharged one by one. In the state that the rotor 16 is rotated to the reception position, the first gear 91, the second gear 92 and the third gear 93 rotate, and the slider 94 moves to a position shown in Fig. 24C. Then, at this position, the latch 96 couples with the coupling protruding portion 94a. As a result, the slider 94 is disabled from moving, and the torque transmission member 90, i.e., the rotor 16, is positioned at the discharge position through the third gear 93, the second gear 92 and the first gear 91. If the coupling state by the latch 96 is cancelled by further pressing down the protruding portion of the torque transmission member 90, the slider 94 moves to a position shown in Fig. 24B by biasing force of the spring 95, so that the third gear 93 rotates. At this time, by virtue of the damper 97, rapid rotation of the third gear 93 is prevented. Therefore, the rotational velocity of the torque transmission member 90 which rotates through the second gear 92 and the first gear 91 is suppressed, and so the rotor 16 smoothly returns to the reception position.